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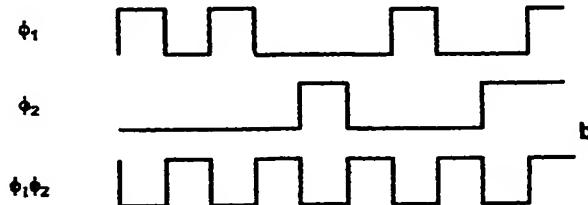
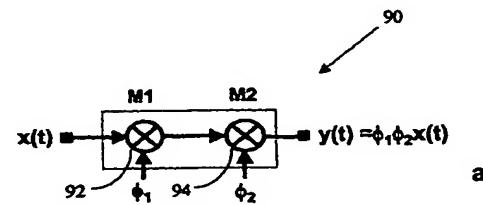
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(54) Title: IMPROVED METHOD AND APPARATUS FOR UP-CONVERSION OF RADIO FREQUENCY (RF) SIGNALS



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(57) Abstract: This patent describes a method and system which overcomes the LO-leakage problem of direct conversion and similar RF transmitters. To solve this problem a virtual LO™ signal is generated within the baseband which is tuned to the incoming RF signal. The virtual local oscillator (VLO) signal is constructed using signals that do not contain a significant amount of power (or no power at all) at the wanted output RF frequency. Any errors in generating the virtual LO signal are minimized using a closed loop correction scheme.